IN THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. - 34. (Canceled)

35. (Currently amended) A flexible sensor cable for use in an intrusion detection system having a processor, the flexible sensor cable having an input and an output~~, both the input and the output of the sensor cable~~ for coupling to the processor, the flexible sensor cable comprising:

a first electrically conductive cable member;

a second electrically conductive cable member;

an air separator and a plastic electrically insulating member both being disposed between the first conductive cable member and the second conductive cable member;

the first electrically conductive cable member having one surface in contact with the air separator and being freely movable within the air separator relative to the plastic electrically insulating member, such that the flexible sensor is capable of providing impedance change in response to a disturbance; and

the plastic electrically insulating member being made of a material selected based on triboelectric series properties and being processed such that the flexible sensor cable is capable of producing a terminal voltage with acceptable signal to noise in response to a disturbance.

36. (Currently amended) ~~A sensor cable~~ The flexible sensor cable as in claim 35, wherein the terminal voltage is produced based on ~~triboelectric~~ an effect chosen from the group consisting of: triboelectric effect, electret effect, and triboelectric and electret effects.

37. (Canceled)

38. (Canceled)

39. (Previously presented) The flexible sensor cable as in claim 35, wherein the sensor cable is a coaxial cable, and wherein the first electrically conductive cable member encloses the second electrically conductive cable member.

40. (Previously presented) The flexible sensor cable as in claim 35, wherein the flexible sensor cable is a coaxial cable, and wherein the second

electrically conductive cable member encloses the first electrically conductive cable member.

41. (Previously presented) The flexible sensor cable as in claim 35, wherein the flexible sensor cable is a coaxial cable, wherein the second electrically conductive cable member encloses the first electrically conductive cable member,

and wherein the sensor cable further includes an outer jacket and a second air separator, such that the second air separator is disposed between the outer jacket of the sensor cable and the plastic electrically insulating member,

and wherein the second electrically conductive member has one surface in contact with the second air separator and being freely movable within the second air separator relative to the plastic electrically insulating member.

42. (Previously presented) The flexible sensor cable as in claim 35, wherein the cable is a coaxial cable, and wherein the surface of the first electrically conductive cable member is coated with a dielectric layer.

43. (Previously presented) The flexible sensor cable as in claim 35, wherein the cable is a twisted pair cable, wherein the plastic electrically insulating member is a plastic coating on the first electrically conductive cable member, and wherein the plastic coating is twisted with the second electrically conductive cable member.

44. (Previously presented) The flexible sensor cable as in claim 35, wherein the plastic electrically insulating member is selected from the group consisting of: polyvinyl chloride, polyethylene, foamed polyethylene, and polypropylene.

45. (Previously presented) The flexible sensor cable as in claim 35, wherein the cable is a threadless radio grade (RG) coaxial type cable.

46. (Currently amended) The flexible sensor cable as in claim 35, wherein the cable is capable of producing the terminal voltage with an acceptable signal to noise ratio in response to the disturbance, the acceptable signal to noise [[is]] being at least an order of magnitude larger than the noise averaged over a period of time.

47. (Currently amended) An integrated flexible sensor cable for use in an intrusion detection system having a processor, the flexible sensor cable having an input and an output, both the input and the output of the sensor cable for coupling to the processor, the integrated sensor cable comprising:

a first electrically conductive cable member;

a second electrically conductive cable member;

an air separator and an plastic electrically insulating member both being disposed between the first conductive cable member and the second conductive cable member;

the first electrically conductive cable member having one surface in contact with the air separator and being freely movable within the air separator relative to the plastic electrically insulating member, ~~to provide~~ such that the flexible sensor cable is capable of providing an impedance change in response to a disturbance; and

the plastic electrically insulating member being made of a material selected based on triboelectric series properties and being processed such that the cable is capable of producing a terminal voltage with an acceptable signal to noise in response to the disturbance, the acceptable signal to noise ratio being at least an order of magnitude larger than the noise averaged over a period of time.

48. (Previously presented) The integrated flexible sensor cable as in claim 47, wherein the cable is a coaxial cable, and wherein the first electrically conductive cable member encloses the second electrically conductive cable member.

49. (Previously presented) The integrated flexible sensor cable as in claim 47, wherein the cable is, a coaxial cable, and wherein the second electrically conductive cable member encloses the first electrically conductive cable member.

50. (Previously presented) The integrated flexible sensor cable as in claim 47, wherein the cable is a coaxial cable, and wherein the surface of the first electrically conductive cable member is coated with a dielectric layer.

51. (Previously presented) The integrated flexible sensor cable as in claim 47, wherein the cable is a twisted pair cable, and wherein the plastic electrically insulating member is twisted together with the second electrically conductive cable member.

52. (Canceled)

53. (Previously presented) The integrated flexible sensor cable as in claim 47, wherein the cable is a threadless radio grade (RG) type cable.

54. (Canceled)

55. (Previously presented) A method of manufacturing an integrated flexible sensor cable for use with an intrusion detection system, comprising steps of:

a) selecting materials for construction of a coaxial cable, the coaxial cable having a first electrically conductive cable member, a second electrically conductive cable member, and an air separator, a threaded member, and an plastic electrically insulating member, the air separator, the threaded member, and the plastic electrically insulating member being disposed between the first electrically conductive cable member and the second electrically conductive cable member, and the threaded

member being wound around the first electrically conductive cable member to prevent movement of the first electrically conductive cable member within the air separator, relative to the insulating member; and

b) altering the construction to omit the threaded member from the manufacturing method to form a threadless coaxial cable, the first electrically conductive cable member having one surface in contact with the air separator and being freely movable within the air separator relative to the plastic electrically insulating member, and the plastic electrically insulating member being made of a material having suitable triboelectric series properties and being processed such that the threadless coaxial cable is capable of producing a terminal voltage with acceptable signal to noise in response to a disturbance.

56. (Previously presented) The method of manufacturing as in claim 55, wherein the standard coaxial cable selected in step a) is a threaded radio grade (RG) cable.

57. (Currently amended) A method of manufacturing an integrated flexible sensor cable for use with an intrusion detection system, comprising steps of:

a) selecting materials for construction of a coaxial cable, the coaxial cable having a first electrically conductive cable member, a second electrically conductive cable member, and an air separator, a threaded member, and an plastic electrically

insulating member, the air separator, the threaded member, and the plastic electrically insulating member being disposed between the first electrically conductive cable member and the second electrically conductive cable member, and the threaded member being wound around the first electrically conductive cable member to prevent movement of the first electrically conductive cable member within the air separator, relative to the insulating member; and

b) altering the construction to omit the threaded member from the manufacturing method to form a threadless coaxial cable, the first electrically conductive cable member having one surface in contact with the air separator and being freely movable within the air separator relative to the plastic electrically insulating member, ~~to provide~~ such that the flexible sensor cable is capable of providing an impedance change in response to a disturbance, and the plastic electrically insulating member being made of a material having suitable triboelectric series properties and being processed such that the de-threaded coaxial cable is capable of producing a terminal voltage with an acceptable signal to noise in response to the disturbance, the acceptable signal to noise ratio being at least an order of magnitude larger than the noise averaged over a period of time.

58. (Previously presented) The method of manufacturing as in claim 57, wherein the coaxial cable selected in step a) is a threaded radio grade (RG) cable, and

further including the step of coupling the threadless coaxial cable to the intrusion detection system for use as a sensing element in the intrusion detection system.

59. (Canceled)

60. (Canceled)

61. (Canceled)

62. (Currently amended) An intrusion detection system comprising:

a flexible cable having a first electrically conductive cable member, a second electrically conductive cable member, and an air separator and an plastic electrically insulating member both being disposed between the first electrically conductive cable member and the second electrically conductive cable member, the first electrically conductive cable member having one surface in contact with the air separator and being freely movable within the air separator relative to the plastic electrically insulating member, ~~to provide~~ such that the flexible cable is capable of providing an impedance change in response to a disturbance, and the plastic electrically insulating member being made of a material selected based on triboelectric series properties and being processed such that the flexible cable is capable of producing a terminal voltage with acceptable signal to noise in response to the disturbance; and

a processor, operatively coupled to the flexible cable, for propagating, in an active state, an injected signal into the flexible cable and receiving a reflected signal altered by the impedance change along the flexible cable, and locating the disturbance based on a timing differential, and for generating a signal, in a passive state, in response to the terminal voltage produced from the flexible cable in order to detect the disturbance.

63. (Canceled)

64. (Canceled)

65. (Canceled)

66. (Previously presented) The intrusion detection system as in claim 62, further including switching means operatively coupled to the processor for alternating in a time sequence between the passive state and the active state.

67. (Previously presented) The intrusion detection system of claim 62, further including switching means operatively coupled between the processor and the flexible cable to form a connection path to the flexible cable, and a time domain reflectometer, operatively coupled to the processor and the switching means, for propagating an injected signal into the cable and receiving a reflected signal altered

by the impedance change along the flexible cable, wherein the switching means is capable of opening and closing the connection path to the flexible cable.

68. (Canceled)